

# Notice of Allowability

Application No.

09/740,565

Examiner

Mohammad A. Siddiqi

Applicant(s)

ANAND ET AL.

Art Unit

2154

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/19/2006.
2. ☒ The allowed claim(s) is/are 1-11, 14-22, 25 and 26 (rearranged claims are 1-22).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

JOHN FOLLANSBEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Francis Lammes on 08/18/2006.

2. Please amend the claims as attached.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad A. Siddiqi whose telephone number is (571) 272-3976. The examiner can normally be reached on Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-

3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAS

  
JOAN FOLLANSBEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

IN THE CLAIMS:

Please amend the claims as follows:

1. (Previously presented) A method for retrieving client boot information in a network environment with multiple boot servers, comprising:
  - initiating at a client an initial request for client configuration information;
  - sending from the client the initial request for client configuration information to a first boot server;
  - receiving at the client a boot server list if the client configuration information is not found on the first boot server; and
  - sending from the client a configuration information request for the client configuration information to each server in the boot server list until the client configuration information is found or a request has been sent to every server in the boot server list.
2. (Original) The method of claim 1, wherein at least one of the initial request, the list request, and the configuration information request is a trivial file transfer protocol request.
3. (Original) The method of claim 1, further comprising:

receiving, from the first boot server, an error message that indicates that the client information is not found on the first boot server.

4. (Original) The method of claim 1, further comprising:

receiving the client configuration information from an associated boot server in response to the client configuration information being found.

5. (Original) The method of claim 4, further comprising:

sending a boot file request for remaining boot files to the associated boot server based on the client configuration information.

6. (Original) The method of claim 1, further comprising:

determining whether the entries in the boot server list were pre-ordered, in order to better support load balancing among boot servers, prior to transmission to the client; and

if the list is found to be ordered, sending a configuration information request for the client configuration information to each server in the boot server list in the order given.

7. (Original) The method of claim 1, further comprising:

sending a configuration information request for the client

configuration information to each server in the boot server list in order of increasing network distance, where distance is estimated from available network configuration information when there was no indication that the order of the original boot server list was optimized in order to better support load balancing.

8. (Original) The method of claim 1, wherein the method is performed by a network bootstrap program.

9. (Original) The method of claim 1, wherein the method is performed on a client computer.

10. (Currently amended) A method for providing client boot information in a network environment with multiple boot servers, comprising:

receiving at a boot server an initial request for client configuration information from a client, wherein the initial request is initiated at a the client; [[and]]

sending from the boot server [[the]] a boot server list to the client if the client configuration information is not found; and

adding an indication to the boot server list to inform the client that the list is being provided in optimal order to support load balancing among boot servers.

11. (Original) The method of claim 10, wherein at least one of the initial request and the list request is a trivial file transfer protocol request.

12-13. (Canceled)

14. (Previously presented) An apparatus for retrieving client boot information in a network environment with multiple boot servers, comprising:

initiating means for initiating at a client an initial request for client configuration information;

first sending means for sending from a client an initial request for client configuration information to a first boot server;

receipt means for receiving at the client a boot server list if the client configuration information is not found on the first boot server; and

second sending means for sending from the client a configuration information request for the client configuration information to each server in

the boot server list until the client configuration information is found or a request has been sent to every server in the boot server list.

15. (Original) The apparatus of claim 14, wherein at least one of the initial request, the list request, and the configuration information request is a trivial file transfer protocol request.

16. (Original) The apparatus of claim 14, further comprising:  
means for receiving, from the first boot server, an error message that indicates that the client information is not found on the first boot server.

17. (Original) The apparatus of claim 14, further comprising:  
means for receiving the client configuration information from an associated boot server in response to the client configuration information being found; and  
means for sending a boot file request for remaining boot files to the associated boot server based on the client configuration information.

18. (Original) The apparatus of claim 14, further comprising:



means for determining whether the entries in the boot server list were pre-ordered, in order to better support load balancing among boot servers, prior to transmission to the client; and

if the list is found to be ordered, means for sending a configuration information request for the client configuration information to each server in the boot server list in the order given.

19. (Original) The apparatus of claim 14, further comprising:

means for sending a configuration information request for the client configuration information to each server in the boot server list in order of increasing network distance, where distance is estimated from available network configuration information when there was no indication that the order of the original boot server list was optimized in order to better support load balancing.

20. (Original) The apparatus of claim 14, wherein the apparatus is client computer running a network bootstrap program.

21. (Currently amended) An apparatus for providing client boot information in a network environment with multiple boot servers, comprising:

receipt means for receiving at a boot server an initial request for client configuration information from a client, wherein the initial request is initiated at a the client; ~~[[and]]~~

sending means for sending from the boot server ~~[[the]]~~ a boot server list to the client if the client configuration information is not found; and

adding means for adding an indication to the boot server list to inform the client that the list is given in optimal order to support load balancing among boot servers.

22. (Original) The apparatus of claim 21, wherein at least one of the initial request and the list request is a trivial file transfer protocol request.

23-24. (Canceled)

25. (Currently amended) A computer program product, in a computer readable storage medium, for retrieving client boot information in a network environment with multiple boot servers, comprising:

instructions for initiating at a client an initial request for client configuration information;

instructions for sending from a the client an initial request for client configuration information to a first boot server;

instructions for receiving at the client a boot server list if the client configuration information is not found on the first boot server; and

instructions for sending from the client a configuration information request for the client configuration information to each server in the boot server list until the client configuration information is found or a request has been sent to every server in the boot server list.

26. (Currently amended) A computer program product, in a computer readable storage medium, for providing client boot information in a network environment with multiple boot servers, comprising:

instructions for receiving at a boot server an initial request for client configuration information from a client, wherein the initial request is initiated at a the client; [[and]]

instructions for sending from the boot server [[the]] a boot server list to the client if the client configuration information is not found; and

instructions for adding an indication to the boot server list to inform the client that the list is being provided in optimal order to support load balancing among boot servers.